

Advanced Antenna for Digital Beamforming SAR

Completed Technology Project (2011 - 2013)

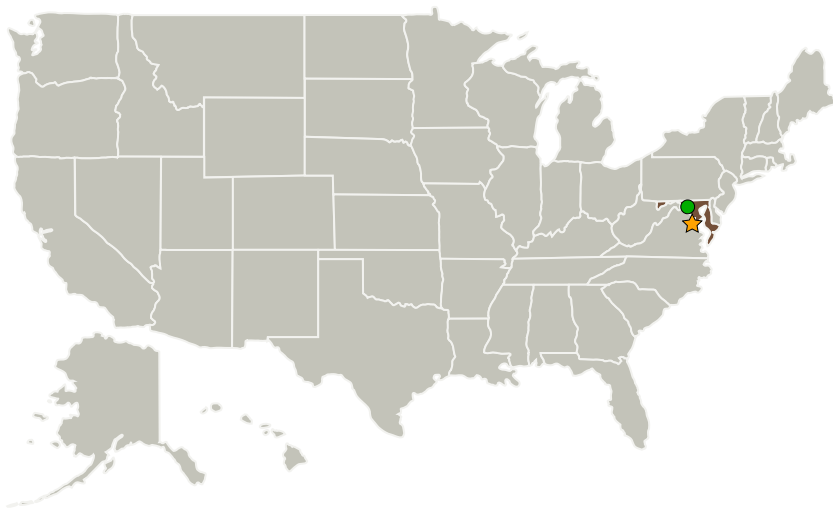


Project Introduction

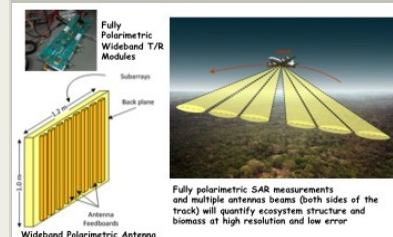
Develop a wideband (500 MHz) L-band phased-array antenna for airborne Synthetic Aperture Radar (SAR) applications based on a novel approach that will make possible meter-resolution and fully polarimetric measurements of permafrost and above ground biomass.

The development will enable a new generation airborne Digital Beamforming Synthetic Aperture Radar (DBSAR-2) instrument that can significantly enhance the scientific measuring capability of existing SAR systems while providing critical data for carbon cycle studies.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ NASA Headquarters(HQ)	Lead Organization	NASA Center	Washington, District of Columbia
● Goddard Space Flight Center(GSFC)	Supporting Organization	NASA Center	Greenbelt, Maryland



Project Image Advanced Antenna for Digital Beamforming SAR

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Organizational Responsibility

Responsible Mission Directorate:

Science Mission Directorate (SMD)

Lead Center / Facility:

NASA Headquarters (HQ)

Responsible Program:

Earth Science

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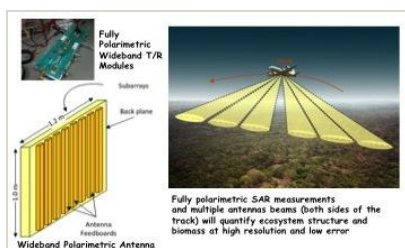
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Primary U.S. Work Locations

Maryland

Images

**10477-1359655656195.jpg**

Project Image Advanced Antenna
for Digital Beamforming SAR
(<https://techport.nasa.gov/image/1550>)

Project Management

Program Director:

George J Komar

Project Manager:

Joseph Famiglietti

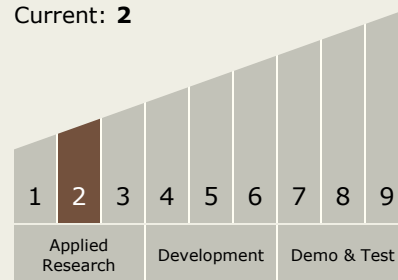
Principal Investigator:

Rafael F Rincon

Technology Maturity
(TRL)

Start: 2

Current: 2



Technology Areas

Primary:

- TX05 Communications, Navigation, and Orbital Debris Tracking and Characterization Systems
 - └ TX05.2 Radio Frequency
 - └ TX05.2.6 Innovative Antennas

Target Destination

Earth